

Imaios.com: “e-MRI” Reloaded and More

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Three and a half years ago, in issue 3/2009 of “Clinical Neuroradiology,” I presented and recommended the website “e-mri.org” in this column. Today, this site is no longer accessible.

The contents, however, are not lost to the web community.

Imaios.com: Anatomy and MRI

The contents of the former site *www.e-mri.org* are now found at *www.imaios.com*. However, they are a kind of addendum to the site’s primary focus which is on anatomy.

Some content is available for free, but the majority requires a subscription (cf. Fig. 1). The different subscription options are explained in detail on the website.

As our residents love Imaios (Fig. 2 shows why), we have an institutional subscription that grants access to users that come to the site from a defined IP address.

The free content—some of the anatomic information and the complete magnetic resonance imaging (MRI) course that was formerly found at *www.e-mri.org*—is fully accessible only with a registration (Fig. 3). This registration is free; the operators of this site just want to know who visits them. In my opinion, the MRI course alone is worth the little trouble to login with a username and password whenever you access the site.

In summary, Imaios is well worth the money. When dictating a report, the detailed anatomy studies often come in handy especially (but not limited to) for residents in training, and the quality of the MRI course has remained unchanged.

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Head and Neck Anatomy



Brain (MRI 3D) **PREMIUM**

Anatomy of the encephalon in MRI (axial, coronal and sagittal slices).
Anatomical structures: cerebral lobes, regions, telencephalon (lobes, association fibres of the white matter, central grey nuclei), diencephalon, cerebellum, brainstem, nuclei of cranial nerves, ventricles, meninges, vascular arteries and territories, veins and venous sinuses.

353 MR images | 26 anatomy diagrams | 524 anatomical parts



Brain (MRI in axial slices) **FREE**

Brain basic anatomy on axial MRI images.
Anatomical structures: sulci, gyri, limbic system, white matter, ventricles, cisterns, basal nuclei, optic tract, cerebellum, brainstem, arteries, venous sinuses, glands, spinal cord.

144 MR images | 160 anatomical parts



Brain (diagrams) **PREMIUM**

Annotated illustrations of the anatomy of the brain
Anatomical structures: lobes and cerebral regions, telencephalon, diencephalon, cerebellum, clusters of white matter, ventricles, arteries, veins, meninges, cranial nerves, functional areas (Brodmann).

64 anatomy diagrams | 730 anatomical parts



Cranial nerves (diagrams) **PREMIUM**

Anatomy of the cranial nerves (illustrations and diagrams)
Emergence and foramen of the cranial nerves, trajectories of the nerves, organs and related structures.

15 anatomy diagrams | 280 anatomical parts



Autonomic nervous system (diagrams) **FREE**

Diagrams of the autonomic nervous system:
cross-section of a ganglion and spinal nerves, sympathetic and parasympathetic innervation of organs, autonomic system of the face and cranial nerves

3 anatomy diagrams | 150 anatomical parts



Petrous bone (CT) **PREMIUM**

Radiological anatomy of the petrous bone and ear on a CT scan
Anatomical structures: external ear, ossicles, tympanic cavity, anterior and posterior bony labyrinth, temporal bone and nerves

115 CT images | 110 anatomical parts



Face and neck (MRI) **PREMIUM**

Imaging anatomical atlas of the face and neck based on MRI in axial, coronal and sagittal slices.
Anatomical structures: bones, foramen, muscles, fascia, nasal cavity, paranasal sinuses, oral cavity, pharynx, larynx, oesophagus, trachea, thyroid, arteries, veins, nerves, Lymph nodes, deep spaces of the head and neck

418 MR images | 505 anatomical parts



Face (CT) **PREMIUM**

Anatomical imagery atlas of the face and base of the skull in scan.
Anatomical structures: bones, teeth, arteries, veins, muscles, nerves, foramen, cavities, mucous membranes, glands, ganglia

420 CT images | 310 anatomical parts

e-Anatomy quicklinks



Fig. 1 Imaios offers a wide choice of anatomic images. Besides computed tomography (CT) and magnetic resonance (MR) studies, instructive diagrams are available for special regions. The selections marked

as “free” are free for registered users, the “premium” topics require a chargeable subscription © IMAIOS SAS (last time accessed on 6th December 2012)

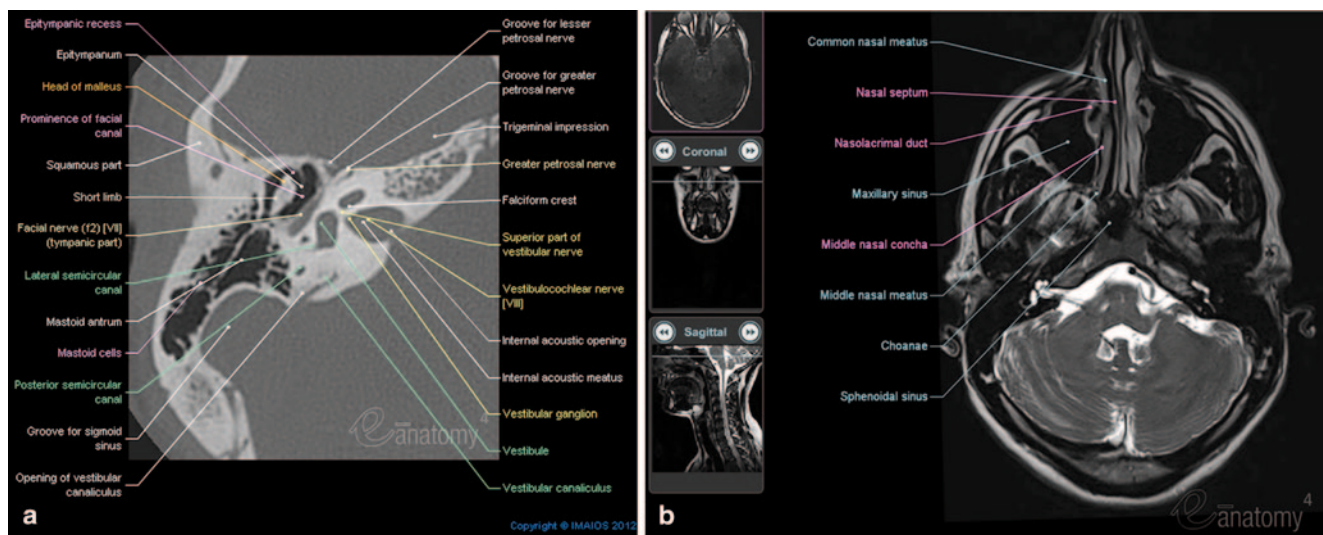


Fig. 2 Examples of the anatomic details that are available (a) CT of the petrous bone (b) MRI of the paranasal sinuses © IMAIOS SAS (last time accessed on 6th December 2012)

Signal recording
Veröffentlicht am Sonntag, 15. Februar 2009 von Denis Hoa

A magnet is a magnetic dipole and it can be represented by a magnetic vector. A moving magnetic field induces a current in a loop of wire. For example, the rotating magnet below induces a sinusoidal current that can be recorded.

MRI coils can be used for transmitting and/or receiving. As it is not possible to receive RF signal in the same axis as B₀, coils are only sensitive to variations of transverse magnetization vector. Quadrature RF coils (circularly polarized coils) consist of at least two coils that are oriented orthogonal to each other (and both are orthogonal to B₀ axis). They have a better signal to noise ratio than linear RF coils.

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Fig. 3 The advantages of registration. On the *left*, you see what you get without registration, the pictures on the *right* show the extended content that is reserved for registered users. Registration is free. *Top*: The schematic drawings of the spine are freely accessible, but a reg-

istration is required for the legends. *Bottom*: The introduction to MRI contains videos that illustrate specific points. The videos are only shown to registered users. © IMAIOS SAS (last time accessed on 6th December 2012)